

## WEST Search History for Application 10551736

Creation Date: 2011072509:41

374/\$.ccls.PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD ADJ YES 11-03-2008  
(11453117 ) and (tube near junction or junction)PGPB ADJ YES 11-03-2008  
(374/100, 110, 111, 112, 113, 114, 115;135, 136, 137, 163, 183, 185, 179,  
208;73/865.5;136/200)![CCLS]PGPB, USPT, USOC, EPAB, JPAB ADJ 11-03-2008  
((374/100, 110, 111, 112, 113, 114, 115;135, 136, 137, 163, 183, 185, 179,  
208;73/865.5;136/200)![CCLS] ) and (thermocouple near rake)PGPB, USPT, USOC, EPAB,  
JPAB ADJ YES 11-03-2008  
((374/100, 110, 111, 112, 113, 114, 115;135, 136, 137, 163, 183, 185, 179,  
208;73/865.5;136/200)![CCLS] ) and (rake)PGPB, USPT, USOC, EPAB,  
JPAB ADJ YES 11-03-2008  
((374/100, 110, 111, 112, 113, 114, 115;135, 136, 137, 163, 183, 185, 179,  
208;73/865.5;136/200)![CCLS] ) and (vessel near temperature)PGPB, USPT, USOC, EPAB,  
JPAB ADJ YES 11-03-2008  
((374/100, 110, 111, 112, 113, 114, 115;135, 136, 137, 163, 183, 185, 179,  
208;73/865.5;136/200)![CCLS] ) and (lever near15 temperature)PGPB, USPT, USOC, EPAB,  
JPAB ADJ YES 11-03-2008  
(level) near15 (liquid or fluid or vessel or container)PGPB, USPT, USOC, EPAB,  
JPAB ADJ YES 11-03-2008  
((level) near15 (liquid or fluid or vessel or container) ) and ((374/100, 110, 111, 112, 113, 114,  
115;135, 136, 137, 163, 183, 185, 179, 208;73/865.5;136/200)![CCLS] )PGPB, USPT, USOC,  
EPAB, JPAB ADJ YES 11-03-2008  
374/136PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD ADJ YES 11-03-2008  
374/137PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD ADJ YES 11-03-2008  
(374/137 ) and (temperature sensor or thermal probe or thermal sensor or temperature probe  
or thermal detector or temperature detector)PGPB, USPT, USOC, EPAB, JPAB, DWPI,  
TDBD ADJ YES 11-03-2008  
(7004625.pn. ) and (pooley or spool or reel)USPT ADJ YES 11-03-2008  
374/4.ccls.USPT ADJ YES 11-03-2008  
374/\$.ccls.USPT ADJ YES 11-03-2008  
(374/\$.ccls. ) and (tube near connect\$3 or cylindrical near  
connect\$3)USPT ADJ YES 11-03-2008  
(374/\$.ccls. and (tube near connect\$3 or cylindrical near connect\$3) ) and ((374/100, 110, 111,  
112, 113, 114, 115;135, 136, 137, 163, 183, 185, 179, 208;73/865.5;136/200)![CCLS] )PGPB,  
USPT, USOC, EPAB, JPAB, DWPI, TDBD ADJ YES 11-03-2008  
(374/137, 136, 110, 111, 112, 113)![CCLS]PGPB, USPT, USOC, EPAB, JPAB ADJ 11-03-2008  
((374/137, 136, 110, 111, 112, 113)![CCLS] ) and (cylindrical near conduit)PGPB, USPT, USOC,  
EPAB, JPAB ADJ YES 11-03-2008  
((374/137, 136, 110, 111, 112, 113)![CCLS] ) and (374/\$.ccls. and (tube near connect\$3 or  
cylindrical near connect\$3) )PGPB, USPT, USOC, EPAB, JPAB ADJ YES 11-03-2008  
374/137USPT ADJ YES 11-03-2008  
(374/137 ) and (thermo near well or cable)USPT ADJ YES 11-03-2008  
374/136USPT ADJ YES 11-03-2008  
(374/137, 139, 140, 141, 142, 26, 170;266/274;222, 590, 594)![CCLS]PGPB, USPT, USOC,  
EPAB, JPAB ADJ 11-06-2008  
((374/137, 139, 140, 141, 142, 26, 170;266/274;222, 590, 594)![CCLS] ) and (molten or melt or  
molten bath or molten metal or molten steel or molten iron or molten aluminum)PGPB,

USPT, USOC, EPAB, JPAB ADJ YES 11-06-2008  
 ((374/137, 139, 140, 141, 142, 26, 170;266/274;222, 590, 594)! [CCLS] ) and (molten or molten bath or molten metal or molten steel or molten iron or molten aluminum)PGPB, USPT, USOC, EPAB, JPAB ADJ YES 11-06-2008  
 ((374/137, 139, 140, 141, 142, 26, 170;266/274;222, 590, 594)! [CCLS] ) and (container)PGPB ADJ YES 11-06-2008  
 ((374/137, 139, 140, 141, 142, 26, 170;266/274;222, 590, 594)! [CCLS] and (molten or molten bath or molten metal or molten steel or molten iron or molten aluminum) ) and (level)PGPB, USPT, USOC, EPAB, JPAB ADJ YES 11-06-2008  
 374/\$.ccls.PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD ADJ YES 11-07-2008  
 (374/\$.ccls. ) and (molten same level)PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD ADJ YES 11-07-2008  
 (374/\$.ccls. and (molten same level) ) and (thermocouple\$1)PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD ADJ YES 11-07-2008  
 (374/\$.ccls. ) and (load\$3 near molten)PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD ADJ YES 11-07-2008  
 (load\$3 near molten)PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD ADJ YES 11-07-2008  
 ((load\$3 near molten) ) and (thermocouple or molten near level)PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD ADJ YES 11-07-2008  
 (averag\$3 near temperature or threshold near temperature or predetermin\$3 near temperature)PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD ADJ YES 11-07-2008  
 ((averag\$3 near temperature or threshold near temperature or predetermin\$3 near temperature) ) and ((load\$3 near molten) and (thermocouple or molten near level) )PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD ADJ YES 11-07-2008  
 (averag\$3 near temperature or threshold near temperature or predetermin\$3 near temperature) same (molten metal)PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD ADJ YES 11-07-2008  
 374/\$.ccls.PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD ADJ YES 11-07-2008  
 (374/\$.ccls. ) and ((averag\$3 near temperature or threshold near temperature or predetermin\$3 near temperature) same (molten metal) )PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD ADJ YES 11-07-2008  
 4984904.pn.USPT ADJ YES 11-13-2008  
 (4984904.pn. ) and (process\$3)USPT ADJ YES 11-13-2008  
 (4984904.pn. ) and (control\$4)USPT ADJ YES 11-13-2008  
 374/\$.ccls.PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD ADJ YES 11-13-2008  
 (374/\$.ccls. ) and (comar\$3 near15 threshold)PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD ADJ YES 11-13-2008  
 (374/\$.ccls. ) and (compar\$3 near15 threshold)PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD ADJ YES 11-13-2008  
 (374/\$.ccls. ) and (compar\$3 near threshold)PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD ADJ YES 11-13-2008  
 (374/\$.ccls. and (compar\$3 near threshold) ) and (alarm\$3 or warning or shut\$3 or turn\$3)PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD ADJ YES 11-13-2008  
 (374/\$.ccls. and (compar\$3 near threshold) ) and (alarm\$3 or warning or shut\$3 or turn\$3) and (average near temperature)PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD ADJ YES 11-13-2008  
 4362403.pn.USPT ADJ YES 11-13-2008  
 (4362403.pn. ) and (averag\$3)USPT ADJ YES 11-13-2008  
 4672842.pn. and (averag\$3)USPT ADJ YES 11-13-2008  
 4915507.pn. and (averag\$3)USPT ADJ YES 11-13-2008  
 2071531.pn.USPT ADJ YES 11-13-2008

63312810USOC, EPAB, JPAB, DWPI ADJ YES 11-13-2008  
62261928USOC, EPAB, JPAB, DWPI ADJ YES 11-13-2008  
62261928EPAB, JPAB ADJ YES 12-02-2008

## Prior Art Searches

Query	DB	Op.	Plur.	Thes.	Date
(374/100, 163, 185, 183, 179, 208, 141, 143, 144, des10/57;116/200;600/474, 549;136/200;73/866.5)! [CCLS]	PGPB, USPT, USOC, EPAB, JPAB	ADJ	YES		09-03-2009
((374/100, 163, 185, 183, 179, 208, 141, 143, 144, des10/57;116/200;600/474, 549;136/200;73/866.5)! [CCLS] ) and ((thread\$4) near (sens\$3 or detect\$3 or probe or thermocouple or gauge or transducer) )	PGPB, USPT, USOC, EPAB, JPAB	ADJ	YES		09-03-2009
10551736	PGPB	ADJ	YES		09-04-2009
(10551736 ) and (thermocouple)	PGPB	ADJ	YES		09-04-2009
(10551736 ) and (thermocouple) and (resist\$3 or thermistor)	PGPB	ADJ	YES		09-04-2009
374/\$.ccls.	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		09-04-2009
(374/\$.ccls. ) and (liquid near level or fluid near level or molt\$2 near level or hydrocarbon near level or melt near level)	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		09-04-2009
(374/\$.ccls. and (liquid near level or fluid near level or molt\$2 near level or hydrocarbon near level or melt near level) ) and (temperature)	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		09-04-2009
(374/\$.ccls. and (liquid near level or fluid near level or	PGPB,	ADJ	YES		09-04-2009

molt\$2 near level or hydrocarbon near level or melt near level) and (temperature) ) and (level near sens\$3 or level near detect\$3 or level near probe or level near gauge or level near transducer)	USPT, USOC, EPAB, JPAB, DWPI, TDBD				
(374/\$.ccls. and (liquid near level or fluid near level or molt\$2 near level or hydrocarbon near level or melt near level) and (temperature) and (level near sens\$3 or level near detect\$3 or level near probe or level near gauge or level near transducer) ) and (shut off or switch off)	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		09-04-2009
4915145.pn.	USPT	ADJ	YES		09-04-2009
4919543.pn.	USPT	ADJ	YES		09-04-2009
11571114	PGPB	ADJ	YES		10-15-2010
(11571114 ) and (gas)	PGPB	ADJ	YES		10-15-2010
(11571114 ) and (gas) and (phase)	PGPB	ADJ	YES		10-15-2010
(11571114 and (gas) ) and (liquid and solid)	PGPB	ADJ	YES		10-15-2010
(11571114 ) and (liquid)	PGPB	ADJ	YES		10-15-2010
(11571114 and (liquid) ) and (solid)	PGPB	ADJ	YES		10-15-2010
gas phase detect\$3	USPT	ADJ	YES		10-18-2010
(hot or warm or boil\$3)	USPT	ADJ	YES		10-18-2010
((hot or warm or boil\$3) ) and (gas phase detect\$3 )	USPT	ADJ	YES		10-18-2010
11571114	PGPB	ADJ	YES		10-18-2010
(11571114 ) and (water)	PGPB	ADJ	YES		10-18-2010
(11571114 ) and (nitrogen)	PGPB	ADJ	YES		10-18-2010
(11571114 ) and (warm or hot)	PGPB	ADJ	YES		10-18-2010
2558063.pn.	USPT	ADJ	YES		10-18-2010
2820196.pn.	USPT	ADJ	YES		10-18-2010
3214963.pn.	USPT	ADJ	YES		10-18-2010
3273379.pn.	USPT	ADJ	YES		10-18-2010
3316752.pn.	USPT	ADJ	YES		10-18-2010
3516752.pn.	USPT	ADJ	YES		10-18-2010

<b>3588689.pn.</b>	USPT	ADJ	YES		10-18-2010
<b>3914688.pn.</b>	USPT	ADJ	YES		10-18-2010
<b>4627740.pn.</b>	USPT	ADJ	YES		10-18-2010
<b>(thermocouple\$1 or thermopile) same (hot and cold) and (fluid or liquid or gas or medium or media or substance) and (thermal conducti\$4 or heat conducti\$4 or thermal resist\$4 or heat resist\$)</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-18-2010
<b>374/\$.ccls.</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-18-2010
<b>(374/\$.ccls. ) and ((thermocouple\$1 or thermopile) same (hot and cold) and (fluid or liquid or gas or medium or media or substance) and (thermal conducti\$4 or heat conducti\$4 or thermal resist\$4 or heat resist\$) )</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-18-2010
<b>(cold junction and hot junction) near (temperature)</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-18-2010
<b>(cold junction and hot junction) near (equal temperature)</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-18-2010
<b>(cold junction and hot junction) near (same temperature)</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-18-2010

<b>(cold junction and hot junction) near (sam\$1 temperature)</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-18-2010
<b>(cold junction and hot junction) near (sam\$1 environment)</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-18-2010
<b>(cold junction and hot junction) same (sam\$1 temperature or sam\$1 environment or sam\$1 fluid or sam\$1 liquid)</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-18-2010
<b>2702476.pn.</b>	USPT	ADJ	YES		10-18-2010
<b>2745283.pn.</b>	USPT	ADJ	YES		10-18-2010
<b>7258483.pn.</b>	USPT	ADJ	YES		10-18-2010
<b>11676360</b>	PGPB	ADJ	YES		10-18-2010
<b>(11676360 ) and (heat\$3)</b>	PGPB	ADJ	YES		10-18-2010
<b>(liquid level or oil level or fluid level) same (thermocouple or thermoelement or thermopile)</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-18-2010
<b>((liquid level or oil level or fluid level) same (thermocouple or thermoelement or thermopile) ) and (374/\$.ccls. )</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-18-2010
<b>((liquid level or oil level or fluid level) same (thermocouple or thermoelement or thermopile) and 374/\$.ccls. ) and (heat\$4)</b>	PGPB, USPT, USOC, EPAB,	ADJ	YES		10-18-2010

	JPAB, DWPI, TDBD				
(374/100, 4, 5, 57, 110, 112, 115, 137, 29, 43, 44, 166, 167, 179, 141, 147, 148;136/200;116/216)![CCLS]	PGPB, USPT, USOC, EPAB, JPAB	ADJ	YES		10-18-2010
(374/100, 4, 5, 57, 110, 112, 115, 137, 29, 43, 44, 166, 167, 179, 141, 147, 148;136/200;116/216;73/290R, 1.16, 1.31, 1.73, 861, 204.11, 204.23, 292, 295)![CCLS]	PGPB, USPT, USOC, EPAB, JPAB	ADJ	YES		10-18-2010
((374/100, 4, 5, 57, 110, 112, 115, 137, 29, 43, 44, 166, 167, 179, 141, 147, 148;136/200;116/216;73/290R, 1.16, 1.31, 1.73, 861, 204.11, 204.23, 292, 295)![CCLS] ) and (thermocouple\$1 or thermopile)	PGPB, USPT, USOC, EPAB, JPAB	ADJ	YES		10-18-2010
((374/100, 4, 5, 57, 110, 112, 115, 137, 29, 43, 44, 166, 167, 179, 141, 147, 148;136/200;116/216;73/290R, 1.16, 1.31, 1.73, 861, 204.11, 204.23, 292, 295)![CCLS] and (thermocouple\$1 or thermopile) ) and (peltier)	PGPB, USPT, USOC, EPAB, JPAB	ADJ	YES		10-18-2010
374/54	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-18-2010
(374/54 ) and (thermocouple\$1 or thermopile)	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-18-2010
(374/54 and (thermocouple\$1 or thermopile) ) and (heat\$4)	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-18-2010
(thermocouple\$1 or thermopile)		ADJ	YES		10-18-2010

	EPAB, JPAB, DWPI				
<b>(length or depth or level or volume) same (fluid or liquid or oil or substance)</b>	EPAB, JPAB, DWPI	ADJ	YES		10-18-2010
<b>((length or depth or level or volume) same (fluid or liquid or oil or substance) ) and ((thermocouple\$1 or thermopile) )</b>	EPAB, JPAB, DWPI	ADJ	YES		10-18-2010
<b>374/54</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-19-2010
<b>(level) near (fluid or liquid or substance or oil)</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-19-2010
<b>((level) near (fluid or liquid or substance or oil) ) and (374/54 )</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-19-2010
<b>((level) near (fluid or liquid or substance or oil) ) and (374/54 ) and (cold junction\$1)</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-19-2010
<b>((level) near (fluid or liquid or substance or oil) ) and (cold junction\$1)</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-19-2010
<b>11676360</b>	PGPB	ADJ	YES		10-19-2010



<b>(11676360 ) and (heat\$4)</b>	PGPB	ADJ	YES		10-19-2010
<b>(level) near (detect\$3 or sens\$3 or gauge)</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-19-2010
<b>((level) near (detect\$3 or sens\$3 or gauge) ) and ((plurality) near (thermocoulumn or thermopiles) )</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-19-2010
<b>(level) near (detect\$3 or sens\$3 or gauge) near (thermopile)</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-19-2010
<b>(level) near (detect\$3 or sens\$3 or gauge) near (thermocouple or thermoelement)</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-19-2010
<b>4672842.pn.</b>	USPT	ADJ	YES		10-19-2010
<b>2468676.pn.</b>	USPT	ADJ	YES		10-19-2010
<b>6098457.pn.</b>	USPT	ADJ	YES		10-19-2010
<b>(level) near (detect\$3 or sens\$3 or gauge or indicat\$3) same (thermocouple or thermoelement or thermopile) same (fluid or liquid or substance)</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-19-2010
<b>((level) near (detect\$3 or sens\$3 or gauge or indicat\$3) same (thermocouple or thermoelement or thermopile) same (fluid or liquid or substance) ) and (opening or hole or fenestr\$4 or oreifice or aperture or penetrat\$4)</b>	PGPB, USPT, USOC, EPAB, JPAB,	ADJ	YES		10-19-2010

	DWPI, TDBD				
<b>((level) near (detect\$3 or sens\$3 or gauge or indicat\$3) same (thermocouple or thermoelement or thermopile) same (fluid or liquid or substance) ) and (opening or hole or fenestr\$4 or orifice or aperture or penetrat\$4)</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-19-2010
<b>73/\$.ccls.</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-19-2010
<b>374/\$.ccls.</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-19-2010
<b>(374/\$.ccls. ) and ((level) near (detect\$3 or sens\$3 or gauge or indicat\$3) same (thermocouple or thermoelement or thermopile) same (fluid or liquid or substance) and (opening or hole or fenestr\$4 or orifice or aperture or penetrat\$4) )</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-19-2010
<b>(detect\$3 or sens\$3 or gauge or indicat\$3 or thermocouple or thermopile) same (fluid or liquid or substance) and (fenestra\$4 or aperture or hole or penetration or protrusion or orifice or fenestr\$5)</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-19-2010
<b>((detect\$3 or sens\$3 or gauge or indicat\$3 or thermocouple or thermopile) same (fluid or liquid or substance) and (fenestra\$4 or aperture or hole or penetration or protrusion or orifice or fenestr\$5) ) and (374/\$.ccls. )</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-19-2010
<b>(detect\$3 or sens\$3 or gauge or indicat\$3 or thermocouple or thermopile) near\$5 (fluid or liquid or</b>	PGPB, USPT,	ADJ	YES		10-19-2010

substance) same (fenestra\$4 or aperture or hole or penetration or protrusion or orifice or fenestr\$5)	USOC, EPAB, JPAB, DWPI, TDBD				
((detect\$3 or sens\$3 or gauge or indicat\$3 or thermocouple or thermopile) near5 (fluid or liquid or substance) same (fenestra\$4 or aperture or hole or penetration or protrusion or orifice or fenestr\$5) ) and (374/\$.ccls. )	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-19-2010
(detect\$3 or sens\$3 or gauge or indicat\$3 or thermocouple or thermopile) near5 (fluid or liquid or substance) near5 (fenestra\$4 or aperture or hole or penetration or protrusion or orifice or fenestr\$5)	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-19-2010
((detect\$3 or sens\$3 or gauge or indicat\$3 or thermocouple or thermopile) near5 (fluid or liquid or substance) near5 (fenestra\$4 or aperture or hole or penetration or protrusion or orifice or fenestr\$5) ) and (374/\$.ccls. )	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-19-2010
(detect\$3 or sens\$3 or gauge or indicat\$3 or thermocouple or thermopile or probe) near5 (fluid or liquid or substance or oil or gas or flow) near5 (fenestra\$4 or aperture or hole or penetration or protrusion or orifice or fenestr\$5)	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-19-2010
((detect\$3 or sens\$3 or gauge or indicat\$3 or thermocouple or thermopile or probe) near5 (fluid or liquid or substance or oil or gas or flow) near5 (fenestra\$4 or aperture or hole or penetration or protrusion or orifice or fenestr\$5) ) and (374/\$.ccls. )	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-19-2010
(thermocouple or thermopile or junctions) near5 (fluid or liquid or substance or oil or gas or flow) near5 (fenestra\$4 or aperture or hole or penetration or protrusion or orifice or fenestr\$5 or perforat\$3)	PGPB, USPT, USOC, EPAB, JPAB, DWPI,	ADJ	YES		10-19-2010

	TDBD				
((thermocouple or thermopile or junctions) near5 (fluid or liquid or substance or oil or gas or flow) near5 (fenestra\$4 or aperture or hole or penetration or protrusion or orifice or fenestr\$5 or perforat\$3) ) and (374/\$.ccls. )	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-19-2010
((thermocouple or thermopile or junctions) near5 (fluid or liquid or substance or oil or gas or flow) near5 (fenestra\$4 or aperture or hole or penetration or protrusion or orifice or fenestr\$5 or perforat\$3) ) and (73/\$.ccls. )	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-19-2010
3015234.pn.	USPT	ADJ	YES		10-19-2010
6431750.pn.	USPT	ADJ	YES		10-19-2010
6123675.pn.	USPT	ADJ	YES		10-19-2010
4747700.pn.	USPT	ADJ	YES		10-19-2010
expos\$4 near junctions	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-19-2010
(thermocouple or thermopile or junctions) near (expos\$4) near (fluid or liquid or substance or oil or gas or flow)	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-19-2010
3301055.pn.	USPT	ADJ	YES		10-21-2010
(3301055.pn. )	USPT	ADJ	YES		10-21-2010
3360990.pn.	USPT	ADJ	YES		10-21-2010
3360990.pn. and (current)	USPT	ADJ	YES		10-21-2010
6123675.pn.	USPT	ADJ	YES		10-21-2010
(6123675.pn. ) and (foil or thin)	USPT	ADJ	YES		10-21-2010
(3301055.pn. ) and (film)	USPT	ADJ	YES		10-21-2010

<b>4387438.pn.</b>	USPT	ADJ	YES		10-21-2010
<b>(4387438.pn. ) and (impulse)</b>	USPT	ADJ	YES		10-21-2010
<b>(4387438.pn. ) and (process\$3 or controll\$3)</b>	USPT	ADJ	YES		10-21-2010
<b>(4387438.pn. ) and (process\$3 or controll\$3) and (level)</b>	USPT	ADJ	YES		10-21-2010
<b>(6123675.pn. ) and (process\$3 or controll\$3) and (level)</b>	USPT	ADJ	YES		10-21-2010
<b>(6123675.pn. ) and (process\$3 or controll\$3) and (level) and (integrat\$3)</b>	USPT	ADJ	YES		10-21-2010
<b>6862932.pn.</b>	USPT	ADJ	YES		10-21-2010
<b>(6862932.pn. ) and (controll\$3 or process43)</b>	USPT	ADJ	YES		10-21-2010
<b>374/54</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-21-2010
<b>(374/54 ) and (impulse)</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-21-2010
<b>(374/54 ) and (microprocessor)</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-21-2010
<b>(374/54 ) and (microprocessor) and (integrat\$3)</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-21-2010
<b>(374/54 ) and (microprocessor) and (integrat\$3) and (impulse)</b>	PGPB, USPT, USOC, EPAB, JPAB,	ADJ	YES		10-21-2010

	DWPI, TDBD				
<b>(impulse near generat\$3) same (level near sens\$3)</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-21-2010
<b>(impulse near generat\$3) same (level)</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-21-2010
<b>374/\$.ccls.</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-21-2010
<b>(374/\$.ccls. ) and ((impulse near generat\$3) same (level) )</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-21-2010
<b>2702476.pn.</b>	USPT	ADJ	YES		10-21-2010
<b>(pulse generat\$3 and integrator) same (level sens\$3 or level gauge or level probe or level transducer)</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-21-2010
<b>plated through holes same thermocouple</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-21-2010

<b>20090225517</b>	PGPB	ADJ	YES		10-21-2010
<b>(20090225517 ) and (RF)</b>	PGPB	ADJ	YES		10-21-2010
<b>7057527.pn.</b>	USPT	ADJ	YES		10-21-2010
<b>5400610.pn.</b>	USPT	ADJ	YES		10-21-2010
<b>20050069861</b>	PGPB	ADJ	YES		10-21-2010
<b>20080031483</b>	PGPB	ADJ	YES		10-21-2010
<b>5108192.pn.</b>	USPT	ADJ	YES		10-21-2010
<b>(5108192.pn. ) and (fluid or liquid or substance)</b>	USPT	ADJ	YES		10-21-2010
<b>3716417.pn.</b>	USPT	ADJ	YES		10-21-2010
<b>(3716417.pn. ) and 38</b>	USPT	ADJ	YES		10-21-2010
<b>(3716417.pn. ) and (fluid or liquid or substance)</b>	USPT	ADJ	YES		10-21-2010
<b>5178009.pn.</b>	USPT	ADJ	YES		10-21-2010
<b>(5178009.pn. ) and (transistor or diode)</b>	USPT	ADJ	YES		10-21-2010
<b>(molten metal) same (transitor)</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-21-2010
<b>(molten metal) near (temperature) same (transistor or diode)</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-21-2010
<b>(level) near (sensor or gauge or transducer or detect\$3 or meter\$3) same (transistor or diode)</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-21-2010
<b>374/54</b>	PGPB, USPT, USOC, EPAB, JPAB,	ADJ	YES		10-21-2010

	DWPI, TDBD				
<b>(374/54 ) and ((level) near (sensor or gauge or transducer or detect\$3 or meter\$3) same (transistor or diode) )</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-21-2010
<b>((level) near (sensor or gauge or transducer or detect\$3 or meter\$3) same (transistor or diode) ) and (temperature near transistor)</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-21-2010
<b>(temperature near transistor)</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-21-2010
<b>((temperature near transistor) ) and (374/54 )</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		10-21-2010
<b>374/\$.ccls.</b>	USPT	ADJ	YES		10-21-2010
<b>(374/\$.ccls. ) and ((temperature near transistor) )</b>	USPT	ADJ	YES		10-21-2010
<b>(temperature near transistor) same (liquid or fluid or gas or molten metal)</b>	USPT	ADJ	YES		10-21-2010
<b>10551736</b>	PGPB	ADJ	YES		07-21-2011
<b>(10551736 ) and (elongated probe)</b>	PGPB	ADJ	YES		07-21-2011
<b>(10551736 ) and (probe and mov\$4)</b>	PGPB	ADJ	YES		07-21-2011
<b>4672842.pn.</b>	USPT	ADJ	YES		07-21-2011
<b>(10551736 ) and (manual\$3)</b>	PGPB	ADJ	YES		07-21-2011
<b>(reposition\$4 probe) and (molten metal)</b>	PGPB, USPT, USOC,	ADJ	YES		07-21-2011



	EPAB, JPAB, DWPI, TDBD				
<b>(\$3position\$4 probe or relocat\$4 probe or move\$4 probe or moveable probe or moving probe) and (molten metal)</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		07-21-2011
<b>(immersion) near (probe or thermocouple)</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		07-25-2011
<b>((immersion) near (probe or thermocouple) ) and (melt or molten metal or molt or slag)</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		07-25-2011
<b>((immersion) near (probe or thermocouple) and (melt or molten metal or molt or slag) ) and (temperature)</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		07-25-2011
<b>((immersion) near (probe or thermocouple) and (melt or molten metal or molt or slag) and (temperature) ) and (\$5controller or controlling or processing or \$5processor or computer)</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		07-25-2011
<b>((immersion) near (probe or thermocouple) and (melt or molten metal or molt or slag) and (temperature) and (\$5controller or controlling or processing or \$5processor or computer) ) and (valve)</b>	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		07-25-2011

((immersion) near (probe or thermocouple) and (melt or molten metal or molt or slag) and (temperature) and (\$5controller or controlling or processing or \$5processor or computer) and (valve) ) and (shut-off or turn\$3 adj off or shut\$4 adj off or turn-off)	PGPB, USPT, USOC, EPAB, JPAB, DWPI, TDBD	ADJ	YES		07-25-2011
(374/100, 141, 29, 30, 166, 140, 139, 147, 111, 112, 113, 114, 115, 135, 136, 137, 163, 183, 185, 179, 208, 54;73/865.5;136/200;324/FOR104:266/87, 90, 99, 107, 111, 274;204/421;604/208)! [CCLS]	PGPB, USPT, USOC, EPAB, JPAB	ADJ	YES		07-25-2011
(374/139, 140, 141, 147, 163, 166, 135, 136, 137, 208, 183, 185, 179, 54, 29, 30, 6, 45;204/421;136/200;604/208;73/865.5, 866.5;324/FOR104, 754, 760;266/87, 90, 99, 107, 111, 274)! [CCLS]	PGPB, USPT, USOC, EPAB, JPAB	ADJ	YES		07-25-2011
(374/139, 140, 141, 147, 163, 166, 135, 136, 137, 208, 183, 185, 179, 54, 29, 30, 6, 45;204/421;136/200;604/208;73/865.5, 866.5, 861, 290R, 290, 295, 301, 304R, 319;324/FOR104, 754, 760;266/87, 90, 99, 107, 111, 274)! [CCLS]	PGPB, USPT, USOC, EPAB, JPAB	ADJ	YES		07-25-2011
((374/139, 140, 141, 147, 163, 166, 135, 136, 137, 208, 183, 185, 179, 54, 29, 30, 6, 45;204/421;136/200;604/208;73/865.5, 866.5, 861, 290R, 290, 295, 301, 304R, 319;324/FOR104, 754, 760;266/87, 90, 99, 107, 111, 274)! [CCLS] ) and (melt or molten metal or molt or slag or molten)	PGPB, USPT, USOC, EPAB, JPAB	ADJ	YES		07-25-2011
((374/139, 140, 141, 147, 163, 166, 135, 136, 137, 208, 183, 185, 179, 54, 29, 30, 6, 45;204/421;136/200;604/208;73/865.5, 866.5, 861, 290R, 290, 295, 301, 304R, 319;324/FOR104, 754, 760;266/87, 90, 99, 107, 111, 274)! [CCLS] and (melt or molten metal or molt or slag or molten) ) and (\$5controller or controlling or processing or \$5processor or computer)	PGPB, USPT, USOC, EPAB, JPAB	ADJ	YES		07-25-2011
((374/139, 140, 141, 147, 163, 166, 135, 136, 137, 208, 183, 185, 179, 54, 29, 30, 6, 45;204/421;136/200;604/208;73/865.5, 866.5, 861, 290R, 290, 295, 301, 304R, 319;324/FOR104, 754, 760;266/87, 90, 99, 107, 111, 274)! [CCLS] and (melt or molten metal or molt or slag or molten) and (\$5controller or controlling or processing or \$5processor or computer) ) and (feedback valve)	PGPB, USPT, USOC, EPAB, JPAB	ADJ	YES		07-25-2011
((374/139, 140, 141, 147, 163, 166, 135, 136, 137, 208, 183, 185, 179, 54, 29, 30, 6, 45;204/421;136/200;604/208;73/865.5, 866.5, 861, 290R,	PGPB, USPT, USOC,	ADJ	YES		07-25-2011

290, 295, 301, 304R, 319;324/FOR104, 754, 760;266/87, 90, 99, 107, 111, 274)! [CCLS] and (melt or molten metal or molt or slag or molten) and (\$5controller or controlling or processing or \$5processor or computer) ) and (volume or level) and (feedback)	EPAB, JPAB				
((374/139, 140, 141, 147, 163, 166, 135, 136, 137, 208, 183, 185, 179, 54, 29, 30, 6, 45;204/421;136/200;604/208;73/865.5, 866.5, 861, 290R, 290, 295, 301, 304R, 319;324/FOR104, 754, 760;266/87, 90, 99, 107, 111, 274)! [CCLS] and (melt or molten metal or molt or slag or molten) and (\$5controller or controlling or processing or \$5processor or computer) and (volume or level) and (feedback) ) and (temperature)	PGPB, USPT, USOC, EPAB, JPAB	ADJ	YES		07-25-2011
(\$5controller or controlling or processing or \$5processor or computer) same (feedback)	PGPB, USPT, USOC, EPAB, JPAB	ADJ	YES		07-25-2011
(( \$5controller or controlling or processing or \$5processor or computer) same (feedback) ) and ((374/139, 140, 141, 147, 163, 166, 135, 136, 137, 208, 183, 185, 179, 54, 29, 30, 6, 45;204/421;136/200;604/208;73/865.5, 866.5, 861, 290R, 290, 295, 301, 304R, 319;324/FOR104, 754, 760;266/87, 90, 99, 107, 111, 274)! [CCLS] and (melt or molten metal or molt or slag or molten) )	PGPB, USPT, USOC, EPAB, JPAB	ADJ	YES		07-25-2011
(( \$5controller or controlling or processing or \$5processor or computer) same (feedback) and (374/139, 140, 141, 147, 163, 166, 135, 136, 137, 208, 183, 185, 179, 54, 29, 30, 6, 45;204/421;136/200;604/208;73/865.5, 866.5, 861, 290R, 290, 295, 301, 304R, 319;324/FOR104, 754, 760;266/87, 90, 99, 107, 111, 274)! [CCLS] and (melt or molten metal or molt or slag or molten) ) and (temperature)	PGPB, USPT, USOC, EPAB, JPAB	ADJ	YES		07-25-2011
(( \$5controller or controlling or processing or \$5processor or computer) same (feedback) and (374/139, 140, 141, 147, 163, 166, 135, 136, 137, 208, 183, 185, 179, 54, 29, 30, 6, 45;204/421;136/200;604/208;73/865.5, 866.5, 861, 290R, 290, 295, 301, 304R, 319;324/FOR104, 754, 760;266/87, 90, 99, 107, 111, 274)! [CCLS] and (melt or molten metal or molt or slag or molten) and (temperature) ) and (level or volume)	PGPB, USPT, USOC, EPAB, JPAB	ADJ	YES		07-25-2011
(melt or molten metal or molt or slag or molten) same (level or volume)	PGPB, USPT,	ADJ	YES		07-25-2011

	USOC, EPAB, JPAB				
((melt or molten metal or molt or slag or molten) same (level or volume) ) and ((374/139, 140, 141, 147, 163, 166, 135, 136, 137, 208, 183, 185, 179, 54, 29, 30, 6, 45;204/421;136/200;604/208;73/865.5, 866.5;324/FOR104, 754, 760;266/87, 90, 99, 107, 111, 274)! [CCLS] )	PGPB, USPT, USOC, EPAB, JPAB	ADJ	YES		07-25-2011
(\$5controller or controlling or processing or \$5processor or computer) same (feedback) and ((melt or molten metal or molt or slag or molten) same (level or volume) and (374/139, 140, 141, 147, 163, 166, 135, 136, 137, 208, 183, 185, 179, 54, 29, 30, 6, 45;204/421;136/200;604/208;73/865.5, 866.5;324/FOR104, 754, 760;266/87, 90, 99, 107, 111, 274)! [CCLS] )	PGPB, USPT, USOC, EPAB, JPAB	ADJ	YES		07-25-2011
(melt or molten metal or molt or slag or molten or cast\$3) same (level or volume or length or heights)	PGPB, USPT, USOC, EPAB, JPAB	ADJ	YES		07-25-2011
(\$5controller or controlling or processing or \$5processor or computer) same (feedback) and ((melt or molten metal or molt or slag or molten or cast\$3) same (level or volume or length or heights) ) and ((374/139, 140, 141, 147, 163, 166, 135, 136, 137, 208, 183, 185, 179, 54, 29, 30, 6, 45;204/421;136/200;604/208;73/865.5, 866.5, 861, 290R, 290, 295, 301, 304R, 319;324/FOR104, 754, 760;266/87, 90, 99, 107, 111, 274)! [CCLS] )	PGPB, USPT, USOC, EPAB, JPAB	ADJ	YES		07-25-2011
(volume or level) near (feedback control)	PGPB, USPT, USOC, EPAB, JPAB	ADJ	YES		07-25-2011
374/\$.ccls.	PGPB, USPT, USOC, EPAB, JPAB	ADJ	YES		07-25-2011
(374/\$.ccls. ) and ((volume or level) near (feedback control) )	PGPB, USPT, USOC, EPAB, JPAB	ADJ	YES		07-25-2011

<b>(volume or level) near (control\$3)</b>	PGPB, USPT, USOC, EPAB, JPAB	ADJ	YES		07-25-2011
<b>((volume or level) near (control\$3) ) and (374/\$.ccls. )</b>	PGPB, USPT, USOC, EPAB, JPAB	ADJ	YES		07-25-2011
<b>((volume or level) near (control\$3) and 374/\$.ccls. ) and (valve)</b>	PGPB, USPT, USOC, EPAB, JPAB	ADJ	YES		07-25-2011
<b>(valve) near (shut-off or turn\$3 adj off or shut\$4 adj off or turn-off or open\$3 or clos\$3 or shut\$4 or turn\$4)</b>	PGPB, USPT, USOC, EPAB, JPAB	ADJ	YES		07-25-2011
<b>((valve) near (shut-off or turn\$3 adj off or shut\$4 adj off or turn-off or open\$3 or clos\$3 or shut\$4 or turn\$4) ) and ((volume or level) near (control\$3) and 374/\$.ccls. and (valve) )</b>	PGPB, USPT, USOC, EPAB, JPAB	ADJ	YES		07-25-2011
<b>10551736.pn.</b>	PGPB	ADJ	YES		07-25-2011
<b>(10551736.pn. ) and (level or volume)</b>	PGPB	ADJ	YES		07-25-2011
<b>20070251960</b>	PGPB	ADJ	YES		07-25-2011
<b>(20070251960 ) and (level or volume)</b>	PGPB	ADJ	YES		07-25-2011
<b>(20070251960 ) and (level or volume) and (indicat\$3)</b>	PGPB	ADJ	YES		07-25-2011
<b>(20070251960 ) and (physical propert\$3)</b>	PGPB	ADJ	YES		07-25-2011